



SEQUENCE LISTING

GENERAL INFORMATION:

(i) APPLICANT: PLANTECHNO S.R.L.

(ii) TITLE OF INVENTION:

SYNTHETIC POLYNUCLEOTIDE ENCODING HUMAN LACTOFERRIN,
VECTORS, CELLS AND TRANSGENIC PLANTS CONTAINING IT

(iii) NUMBER OF SEQUENCES: 22

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Società Italiana Brevetti

(B) STREET: Piazza di Pietra, 39

(C) CITY: Roma

(D) COUNTRY: Italy

(E) POSTAL CODE: I-00186

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE:

(B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS Rev. 5.0

(D) SOFTWARE: Microsoft Word 6.0

(viii) ATTORNEY INFORMATION

(A) NAME: LEONE, Mario (Eng.)

(B) REFERENCE: PC-EBR

(ix) TELECOMMUNICATION INFORMATION

(A) TELEPHONE: 06/695441

(B) TELEFAX: 06/69544830

(C) TELEX: 612287 ROPAT

(1) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 2079 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

(A) NAME: LFUSYN

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

```
GGC CGT AGG AGA AGG AGT GTT CAA TGG TGC GCA GTA TCA CAA CCA 45
G  R  R  R  R  S  V  Q  W  C  A  V  S  Q  P

GAG GCC ACA AAA TGC TTC CAA TGG CAA AGG AAT ATG AGA AAA GTT 90
E  A  T  K  C  F  Q  W  Q  R  N  M  R  K  V

CGT GGA CCT CCT GTA TCT TGC ATA AAG AGA GAT TCA CCC ATC CAG 135
R  G  P  P  V  S  C  I  K  R  D  S  P  I  Q

TGT ATC CAG GCA ATT GCG GAA AAC AGA GCT GAT GCT GTG ACT CTT 180
C  I  Q  A  I  A  E  N  R  A  D  A  V  T  L

GAT GGT GGT TTC ATA TAC GAG GCA GGA CTT GCC CCA TAC AAA CTG 225
D  G  G  F  I  Y  E  A  G  L  A  P  Y  K  L

CGA CCT GTA GCG GCG GAA GTC TAC GGG ACC GAA AGA CAA CCA CGA 270
R  P  V  A  A  E  V  Y  G  T  E  R  Q  P  R

ACT CAC TAT TAT GCT GTG GCT GTT GTG AAG AAG GGC GGA TCT TTT 315
T  H  Y  Y  A  V  A  V  V  K  K  G  G  S  F

CAG CTG AAC GAA CTT CAA GGT CTG AAG TCA TGC CAC ACA GGA CTT 360
Q  L  N  E  L  Q  G  L  K  S  C  H  T  G  L

CGC AGG ACC GCT GGA TGG AAT GTC CCT ATA GGG ACA CTT CGT CCA 405
R  R  T  A  G  W  N  V  P  I  G  T  L  R  P
```

TTC	TTG	AAT	TGG	ACG	GGT	CCA	CCT	GAG	CCC	ATT	GAG	GCA	GCT	GTG	450
F	L	N	W	T	G	P	P	E	P	I	E	A	A	V	
GCA	AGA	TTC	TTC	TCA	GCC	TCT	TGT	GTT	CCA	GGT	GCA	GAT	AAA	GGA	495
A	R	F	F	S	A	S	C	V	P	G	A	D	K	G	
CAA	TTC	CCC	AAC	CTT	TGT	CGC	CTG	TGT	GCG	GGG	ACA	GGG	GAA	AAC	540
Q	F	P	N	L	C	R	L	C	A	G	T	G	E	N	
AAA	TGT	GCA	TTC	TCA	TCC	CAG	GAA	CCG	TAC	TTC	AGC	TAC	TCT	GGT	585
K	C	A	F	S	S	Q	E	P	Y	F	S	Y	S	G	
GCC	TTT	AAG	TGT	CTT	AGA	GAC	GGT	GCT	GGA	GAT	GTT	GCT	TTT	ATT	630
A	F	K	C	L	R	D	G	A	G	D	V	A	F	I	
AGA	GAG	AGC	ACA	GTG	TTT	GAG	GAT	CTT	TCA	GAC	GAG	GCT	GAA	AGG	675
R	E	S	T	V	F	E	D	L	S	D	E	A	E	R	
GAC	GAG	TAT	GAG	TTA	CTC	TGC	CCA	GAC	AAC	ACT	CGT	AAG	CCA	GTT	720
D	E	Y	E	L	L	C	P	D	N	T	R	K	P	V	
GAC	AAG	TTC	AAA	GAT	TGC	CAT	CTT	GCA	CGG	GTC	CCT	TCT	CAT	GCC	765
D	K	F	K	D	C	H	L	A	R	V	P	S	H	A	
GTT	GTG	GCA	CGA	AGT	GTT	AAT	GGA	AAG	GAG	GAT	GCC	ATC	TGG	AAT	810
V	V	A	R	S	V	N	G	K	E	D	A	I	W	N	
CTT	CTC	CGC	CAA	GCA	CAG	GAA	AAG	TTT	GGA	AAG	GAC	AAG	TCA	CCG	855
L	L	R	Q	A	Q	E	K	F	G	K	D	K	S	P	
AAA	TTC	CAG	CTC	TTT	GGT	TCC	CCT	AGT	GGG	CAG	AAA	GAT	CTT	CTG	900
K	F	Q	L	F	G	S	P	S	G	Q	K	D	L	L	
TTC	AAG	GAC	TCT	GCC	ATT	GGG	TTT	TCG	AGA	GTG	CCA	CCT	AGG	ATA	945
F	K	D	S	A	I	G	F	S	R	V	P	P	R	I	

GAT	TCT	GGG	TTG	TAC	CTT	GGC	TCC	GGA	TAC	TTT	ACT	GCA	ATT	CAG	990
D	S	G	L	Y	L	G	S	G	Y	F	T	A	I	Q	
AAC	TTG	AGG	AAA	AGT	GAG	GAG	GAA	GTT	GCT	GCC	CGG	CGT	GCG	CGG	1035
N	L	R	K	S	E	E	E	V	A	A	R	R	A	R	
GTC	GTT	TGG	TGT	GCG	GTG	GGA	GAG	CAA	GAG	TTG	CGC	AAG	TGT	AAC	1080
V	V	W	C	A	V	G	E	Q	E	L	R	K	C	N	
CAG	TGG	AGT	GGT	TTG	AGC	GAA	GGA	TCT	GTG	ACC	TGC	TCA	TCG	GCC	1125
Q	W	S	G	L	S	E	G	S	V	T	C	S	S	A	
TCC	ACT	ACA	GAA	GAT	TGC	ATC	GCC	CTG	GTG	TTG	AAA	GGA	GAA	GCT	1170
S	T	T	E	D	C	I	A	L	V	L	K	G	E	A	
GAT	GCC	ATG	AGT	TTG	GAT	GGA	GGA	TAT	GTT	TAC	ACT	GCA	GGT	AAA	1215
D	A	M	S	L	D	G	G	Y	V	Y	T	A	G	K	
TGT	GGT	TTG	GTG	CCT	GTC	CTT	GCA	GAG	AAC	TAC	AAA	TCA	CAA	CAA	1260
C	G	L	V	P	V	L	A	E	N	Y	K	S	Q	Q	
AGC	AGT	GAC	CCT	GAT	CCT	AAC	TGT	GTG	GAT	AGA	CCT	GTG	GAA	GGA	1305
S	S	D	P	D	P	N	C	V	D	R	P	V	E	G	
TAT	CTT	GCT	GTG	GCG	GTG	GTT	AGG	AGA	TCA	GAC	ACT	AGC	CTT	ACC	1350
Y	L	A	V	A	V	V	R	R	S	D	T	S	L	T	
TGG	AAC	TCT	GTG	AAA	GGC	AAG	AAG	TCC	TGC	CAC	ACC	GCC	GTG	GAC	1395
W	N	S	V	K	G	K	K	S	C	H	T	A	V	D	
AGG	ACT	GCA	GGT	TGG	AAT	ATC	CCC	ATG	GGA	TTG	CTC	TTC	AAC	CAG	1440
R	T	A	G	W	N	I	P	M	G	L	L	F	N	Q	
ACG	GGC	TCC	TGC	AAA	TTT	GAT	GAA	TAT	TTC	AGT	CAA	AGC	TGT	GCC	1485
T	G	S	C	K	F	D	E	Y	F	S	Q	S	C	A	
CCT	GGT	TCT	GAC	CCA	AGA	TCT	AAT	CTC	TGT	GCT	TTG	TGT	ATT	GGA	1530

P	G	S	D	P	R	S	N	L	C	A	L	C	I	G		
GAT	GAG	CAA	GGT	GAG	AAT	AAG	TGC	GTT	CCC	AAC	AGC	AAC	GAG	AGA	1575	
D	E	Q	G	E	N	K	C	V	P	N	S	N	E	R		
TAC	TAC	GGT	TAC	ACT	GGG	GCT	TTC	CGT	TGC	TTG	GCT	GAG	AAT	GCT	1620	
Y	Y	G	Y	T	G	A	F	R	C	L	A	E	N	A		
GGA	GAC	GTT	GCA	TTT	GTG	AAA	GAT	GTC	ACT	GTC	TTG	CAG	AAC	ACT	1665	
G	D	V	A	F	V	K	D	V	T	V	L	Q	N	T		
GAT	GGA	AAT	AAC	AAT	GAG	GCA	TGG	GCT	AAG	GAT	TTG	AAG	CTT	GCA	1710	
D	G	N	N	N	E	A	W	A	K	D	L	K	L	A		
GAC	TTT	GCG	TTG	CTG	TGC	CTC	GAT	GGC	AAA	CGT	AAG	CCT	GTG	ACT	1755	
D	F	A	L	L	C	L	D	G	K	R	K	P	V	T		
GAA	GCT	AGA	AGC	TGC	CAT	CTT	GCC	ATG	GCC	CCG	AAT	CAT	GCT	GTG	1800	
E	A	R	S	C	H	L	A	M	A	P	N	H	A	V		
GTG	TCT	CGT	ATG	GAT	AAG	GTG	GAA	CGC	TTG	AAA	CAG	GTG	TTG	CTC	1845	
V	S	R	M	D	K	V	E	R	L	K	Q	V	L	L		
CAC	CAA	CAG	GCT	AAA	TTT	GGT	AGA	AAT	GGA	TCT	GAC	TGC	CCG	GAC	1890	
H	Q	Q	A	K	F	G	R	N	G	S	D	C	P	D		
AAG	TTT	TGC	TTA	TTC	CAG	TCT	GAA	ACC	AAA	AAC	CTT	TTG	TTC	AAT	1935	
K	F	C	L	F	Q	S	E	T	K	N	L	L	F	N		
GAC	AAC	ACT	GAG	TGT	CTT	GCC	AGA	CTC	CAT	GGC	AAA	ACA	ACA	TAT	1980	
D	N	T	E	C	L	A	R	L	H	G	K	T	T	Y		
GAA	AAA	TAT	TTG	GGA	CCA	CAG	TAT	GTC	GCA	GGC	ATT	ACT	AAT	CTG	2025	
E	K	Y	L	G	P	Q	Y	V	A	G	I	T	N	L		
AAA	AAG	TGC	TCA	ACC	TCC	CCA	CTC	CTA	GAA	GCC	TGT	GAA	TTC	CTA	2070	
K	K	C	S	T	S	P	L	L	E	A	C	E	F	L		

AGG AAG TAA

2079

R K *

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 30 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 46

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GGATCCATGG GCCGTAGGAG AAGGAGTGTT

30

(3) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 32 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 47

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GAGCTCCTTC GGTTTTACTT CCTGAGGAAT TC

32

(4) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 42 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 48

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TCTAGATAAA ATAATCTATA CATTAAGAAA TTTGATTTTA AA 42

(5) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 36 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 49

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GGATCCGACT GAGTCGGATA AGAAGAAAAG AAAAGA 36

(6) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 36 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 50

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TCTAGAGTTT TCAAATTTGA ATTTAATGT GTGTTG 36

(7) INFORMATION FOR SEQ ID NO: 7:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 36 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: oligonucleotide
(ix) FEATURES
(A) NAME: PLT 51
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GGATCCCACC TTAAGGAGGT TGCAACGAGC GTGGCA 36

(8) INFORMATION FOR SEQ ID NO:8:

(i) SEQUENCE CHARACTERISTICS
(A) LENGTH: 250 bp
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: oligonucleotide
(ix) FEATURES
(A) NAME: PLT 120
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

GGC CGT AGG AGA AGG AGT GTT CAA TGG TGC GCA GTA TCA CAA CCA GAG
GCC ACA AAA TGC TTC CAA TGG CAA AGG AAT ATG AGA AAA GTT CGT GGA
CCT CCT GTA TCT TGC ATA AAG AGA GAT TCA CCC ATC CAG TGT ATC CAG
GCA ATT GCG GAA AAC AGA GCT GAT GCT GTG ACT CTT GAT GGT GGT TTC
ATA TAC GAG GCA GGA CTT GCC CCA TAC AAA CTG CGA CCT GTA GCG GCG
GAA GTC TAC G

(9) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS
(A) LENGTH: 250 bp
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 121

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

GC ACC TGG AAC ACA AGA GGC TGA GAA GAA TCT TGC CAC AGC TGC CTC

AAT GGG CTC AGG TGG ACC CGT CCA ATT CAA GAA TGG ACG AAG TGT CCC

TAT AGG GAC ATT CCA TCC AGC GGT CCT GCG AAG TCC TGT GTG GCA TGA

CTT CAG ACC TTG AAG TTC GTT CAG CTG AAA AGA TCC GCC CTT CTT CAC

AAC AGC CAC AGC ATA ATA GTG AGT TCG TGG TTG TCT TTC GGT CCC GTA

GAC TTC CGC CG

(10) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 250 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 122

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

AAC TGG CTT ACG AGT GTT GTC TGG GCA GAG TAA CTC ATA CTC GTC

CCT TTC AGC CTC GTC TGA AAG ATC CTC AAA CAC TGT GCT CTC TCT

AAT AAA AGC AAC ATC TCC AGC ACC GTC TCT AAG ACA CTT AAA GGC

ACC AGA GTA GCT GAA GTA CGG TTC CTG GGA TGA GAA TGC ACA TTT

GTT TTC CCC TGT CCC CGC ACA CAG GCG ACA AAG GTT GGG GAA TTG

TCC TTT ATC TGC ACC TGG AAC ACA A

(11) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 255 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 123

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

GTA CAA CCC AGA ATC TAT CCT AGG TGG CAC TCT CGA AAA CCC AAT GGC

AGA GTC CTT GAA CAG AAG ATC TTT CTG CCC ACT AGG GGA ACC AAA GAG

CTG GAA TTT CGG TGA CTT GTC CTT TCC AAA CTT TTC CTG TGC TTG GCG

GAG AAG ATT CCA GAT GGC ATC CTC CTT TCC ATT AAC ACT TCG TGC CAC

AAC GGC ATG AGA AGG GAC CCG TGC AAG ATG GCA ATC TTT GAA CTT GTC

AAC TGG CTT ACG AGT

(12) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 251 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 124

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

TA TCC TCC ATC CAA ACT CAT GGC ATC AGC TTC TCC TTT CAA CAC CAG
GGC GAT GCA ATC TTC TGT AGT GGA GGC CGA TGA GCA GGT CAC AGA TCC
TTC GCT CAA ACC ACT CCA CTG GTT ACA CTT GCG CAA CTC TTG CTC TCC
CAC CGC ACA CCA AAC GAC CCG CGC ACG CCG GGC AGC AAC TTC CTC CTC
ACT TTT CCT CAA GTT CTG AAT TGC AGT AAA GTA TCC GGA GCC AAG GTA
CAA CCC AGA ATC

(13) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 75 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(D) OTHER INFORMATION: leader sequence of protein 7S
basic globulin

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

ATGGCTTCTA TCCTCCACTA CTTTTTAGCC CTCTCTCTTT CTTGCTCTTT 50
TCTTTTCTTC TTATCCGACT CAGTC 75

(14) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 191 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(D) OTHER INFORMATION: leader sequence of protein β -
conglycinine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

ATGATGAGAG CGCGGTTCCC ATTACTGTTG CTGGGAGTTG TTTTCCTAGC 50
 ATCAGTTTCT GTCTCATTTG GCATTGCGTA TTGGGAAAAG CAGAACCCCA 100
 GTCACAACAA GTGCCTCCGA AGTTGCAATA GCGAGAAAGA CTCCTACAGG 150
 AACCAAGCAT GCCACGCTCG TTGCAACCTC CTTAAGGTG 189

(15) INFORMATION FOR SEQ ID NO:15:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 250 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 125

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

GAGCAATCCC ATGGGGATAT TCCAACCTGC AGTCCTGTCC ACGGCGGTGT 50
 GGCAGGACTT CTTGCCTTTC ACAGAGTTCC AGGTAAGGCT AGTGTCTGAT 100
 CTCCTAACCA CCGCCACAGC AAGATATCCT TCCACAGGTC TATCCACACA 150
 GTTAGGATCA GGGTCACTGC TTTGTTGTGA TTTGTAGTTC TCTGCAAGAC 200
 AGGCACCAAA CCACATTTAC CTGCAGTGTA AACATATCCT CCATCCAAAC 250

(16) INFORMATION FOR SEQ ID NO:16:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 254 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 126

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

CCATCAGTGT TCTGCAAGAC AGTGACATCT TTCACAAATG CAACGTCTCC 50
 AGCATTCTCA GCCAAGCAAC GGAAAGCCCC AGTGTAACCG TAGTATCTCT 100
 CGTTGCTGTT GGGAACGCAC TTATTCTCAC CTTGCTCATC TCCAATACAC 150
 AAAGCACAGA GATTAGATCT TGGGTCAGAA CCAGGGGCAC AGCTTTGACT 200
 GAAATATTCA TCAAATTTGC AGGAGCCCGT CTGGTTGAAG AGCAAGCCCA 250
 TGGG 254

(17) INFORMATION FOR SEQ ID NO:17:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 229 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 127

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

```
GCAGTCAGAT CCATTTCTAC CAAATTTAGC CTGTTGGTGG AGCAACACCT 50
GTTTCAAGCG TTCCACCTTA TCCATACGAG ACACCACAGC ATGATTCGGG 100
GCCATGGCAA GATGGCAGCT TCTAGCTTCA GTCACAGGCT TACGTTTGCC 150
ATCGAGGCAC AGCAACGCAA AGTCTGCAAG CTTCAAATCC TTAGCCCATG 200
CCTCATTGTT ATTTCCATCA GTGTTCTGC 229
```

(18) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 210 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

- (A) NAME: PLT 128

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

```
TTACTTCCTT AGGAATTCAC AGGCTTCTAG GAGTGGGGAG GTTGAGCACT 50
TTTTTCAGATT AGTAATGCCT GCGACATACT GTGGTCCCAA ATATTTTTC 100
TATGTTGTTT TGCCATGGAG TCTGGCAAGA CACTCAGTGT TGTCATTGAA 150
CAAAAGGTTT TTGGTTTCAG ACTGGAATAA GCAAAACTTG TCCGGGCAGT 200
CAGATCCATT 210
```

(19) INFORMATION FOR SEQ ID NO:19:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 30 bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 129

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

GGATCCATGG GCCGTAGGAG AAGGAGTGTT

30

(20) INFORMATION FOR SEQ ID NO:20:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 28 bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: oligonucleotide

(ix) FEATURES

(A) NAME: PLT 120

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

GAGCTCTTAC TTCCTTAGGA ATTCACAG

28

(21) INFORMATION FOR SEQ ID NO:21:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: bp

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

(D) OTHER INFORMATION: sequence of promoter of gene encoding 7S basic globulin

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

TAAAATAATC	TATACATTAA	AAAATTTGAT	TTTAAAATTT	TAGAAATTCA	50
TGATTTTATT	TTTTTTTACC	AGAAATCCGT	TAATATTGTT	AAAATATTAC	100
CAACTAATTT	ATAAATTTTA	TTTAAAGGCA	ATTAAGCATG	TTTGATAAAA	150
TATATATATT	GTTATAAATA	CTTTTCAAAA	GTATAAAGTT	GATGATGGCG	200
TGGTGGTAGA	TTATTTTLAGT	TCTAGGTTTCG	AATGCAAGTT	GGTTTAGACA	250
TTTAGCCTTA	TTCTTTTTC	TAACCAAAAT	AAATGTAAAT	GGAAAACCTT	300
TAGGAAAAAA	AAGAAATCAA	AATTGAAAAC	ATCATCCGGT	GGAGTCGAGA	350
AGCCACACC	CACGTGACCC	AACAATATTA	AAATAAGAGT	TTGCTCTACA	400


```

GTAAATGCGA TACTTTTTTTA TTCAATACTT TTTCCACTTC TAAAATCTTG 450
GAGATTTGCA CCGTTAACTA ATTAAGTGTT ATATCCAACG GTCCTAAAAA 500
AACTTGTGTA CCGTGCCTCA CATTTCAACT TTGCGCACCC TGAAAGCCGT 550
TATGTTTAGG TTAGTGTTTG CAACAGTTGA AGCGCATCAC TCAGGAGGCT 600
ACTTGGTCTT GCTTTTGCGT CTTTGTTC ATTTTTCACG TGATTTTGTT 650
GGTGAACACG CGTACTTGAA ACTTATTATA AATTACATAA TTTTATAAGT 700
TTCACCTCTT ATATAATACT CATATAATAT ATAGGGTTTA GAATGCCAAT 750
TTTTAAAAAA AGAATAAAAA AATAAATAGA ATAAAATCGA AAAAATGAAA 800
TGTA AAAAAT TTGAGGGGGA CAAATAAAAT ATGAAAGTCT ATTATTTAAA 850
TTTTCCATTA GAATTCTATT TTCCTTAGTT AATATGAGCT AGCCAGTTGG 900
GAGATACACG AAAATGTCAT GAAACAGTTG CATGTAGGGA AATTAATGTA 950
GTAGAGGGAT AGCAAGACAA AAATCCAAGC CAAGCTAGCT GCTCACGCGA 1000
ACTCGATCCA CACGTCCTTT ACAGAGTTTC AAACGGATGA AATCTGCATG 1050
GCATGCAACT AAAGCATTGT TCTCAGCTGC CAAGTACCCC TCACACTCAC 1100
CAACCCTTTG TTTTCTCCC CATTGCATGT TAACTCAAGT TTATCCTTTC 1150
TTTGCTTCTG GAAATTTTAC AAGCCTCAAA CACGTCGACG TCCAATCTTG 1200
TGACCAACAC GGCCAAAAGA AAAGAGAATC TCATCCCGTT CACACTTAGC 1250
CACTTAAAGC TAGCCAAACG GTGATCTTTC TCTATATATT GTAGCTCTCT 1300
AACACAACCA ACACTACCAT TATTCAATAT TCAAACCTTG CTCTATACTA 1350
CACACACTAG AAGAATA
1367

```

(22) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: bp
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURES

(D) OTHER INFORMATION: sequence of promoter of gene coding for β -conglycinine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

```

GTTTTCAAAT TTGAATTTTA ATGTGTGTTG TAAGTATAAA TTAAAATAA 50
AAATAAAAAC AATTATTATA TCAAATGGC AAAACATTT AATACGTATT 100
ATTTATTAAA AAAATATGTA ATAATATATT TATATTTTAA TATCTATTCT 150
TATGTATTTT TTAAAATCT ATTATATATT GATCAACTAA AATATTTTTA 200
TATCTACACT TATTTTGCAT TTTTATCAAT TTTCTTGCGT TTTTGGCAT 250

```

ATTTAATAAT	GACTATTCTT	TAATAATCAA	TCATTATTCT	TACATGGTAC	300
ATATTGTTGG	AACCATATGA	AGTG TTCATT	GCATTTGACT	ATGTGGATAG	350
TGTTTTGATC	CATGCCCTTC	ATTTGCCGCT	ATTAATTAAT	TTGGTAACAG	400
ATTCGTTCTA	ATCAGTTACT	TAATCCTTCC	TCATCATAAT	TAATCTGGTA	450
GTTCGAATGC	CATAATATTG	ATTAGTTTTT	TGGACCATAA	GAAAAAGCCA	500
AGGAACAAAA	GAAGACAAAA	CACAATGAGA	GTATCCTTTG	CATAGCAATG	550
TCTAAGTTCA	TAAAATTCAA	ACAAAAACGC	AATCACACAC	AGTGGACATC	600
ACTTATCCAC	TAGCTGATCA	GGATCGCCGC	GTCAAGAAAA	AAAAACTGGA	650
CCCCAAAAGC	CATGCACAAC	AACACGTACT	CACAAAGGCG	TCAATCGAGC	700
AGCCCCAAAAC	ATTCACCAAC	TCAACCCATC	ATGAGCCCAC	ACATTTGTTG	750
TTTCTAACCC	AACCTCAAAC	TCGTATTCTC	TTCCGCCACC	TCATTTTTGT	800
TTATTTCAAC	ACCCGTCAAA	CTGCATCCCA	CCCCGTGGCC	AAATGTTCAT	850
GCATGTTAAC	AAGACCTATG	ACTATAAATA	TCTGCAATCT	CGGCCCAAGT	900
TTTCATCATC	AAGAACCAGT	TCAATATCCT	AGTACGCCGT	ATTAAAGAAT	950
TTAAGATATA	CT				962